

Abstract

A peritoneal function testing method of using a ratio $MTAC_{un}/MTAC_c$ calculated using $MTAC_{un}$ and $MTAC_c$ as an index for a peritoneal function test. $MTAC_{un}$ is an overall mass transfer-area coefficient for urea nitrogen and $MTAC_c$ is an overall mass transfer-area coefficient for creatinine. Use of the $MTAC_{un}/MTAC_c$ ratio enables examination of the future peritoneal function of a patient (a mechanism of deterioration in peritoneal function). $MTAC_{un}$ and $MTAC_c$ are obtained using a Pyle-Popovich model. The peritoneal function testing method further calculates a permeability coefficient for cell pores ($L_P S_C$) and an overall permeability coefficient ($L_P S$) from a Three-Pore Theory model to obtain a ratio $L_P S_C/L_P S$ calculated using the $L_P S_C$ and the $L_P S$, and further uses the $L_P S_C/L_P S$ ratio and the $MTAC_{un}/MTAC_c$ ratio as indexes for the peritoneal function test.